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ANALYSIS OF DECISION-MAKING FACTORS EQUITY
INVESTMENT IN INDONESIA

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Abstract. *Investment decision for an investor is influenced by various factors. Ideally, investors need to have various considerations before they finally make an investment. The importance of knowing the factors that shape the decision to choose stocks for investors in Indonesia is the purpose of this research. There were 185 respondents who fulfilled the purposive sampling technique as a sample collection technique. The research instrument was a questionnaire as primary data. The data analysis technique was carried out by factor analysis with the principle component analysis approach and SPSS as a research tool. The stages of factor analysis are carried out by compiling a correlation matrix, extraction factors, rotation factors, and naming factors. The result is that there are two factors that are generated as forming factors for investing in stocks in Indonesia, namely investment management experience; investment management knowledge*

Abstrak. Keputusan berinvestasi bagi seorang investor dipengaruhi oleh berbagai macam faktor. Idealnya, investor perlu untuk memiliki berbagai pertimbangan sebelum akhirnya mereka melakukan investasi. Pentingnya mengetahui faktor pembentuk keputusan berinvestasi saham pada investor di Indonesia ini menjadikan tujuan penelitian ini dilakukan. Terdapat 185 responden yang memenuhi teknik purposive sampling sebagai teknik pengumpulan sampel. Instrumen penelitian adalah kuesioner sebagai data primer. Teknik analisis data dilakukan dengan analisis faktor dengan pendekatan principle component analysis dan SPSS sebagai alat bantu penelitian. Tahapan analisis faktor dilakukan dengan menyusun matriks korelasi, ekstraksi faktor, rotasi faktor, dan penamaan faktor. Hasilnya terdapat dua faktor yang dihasilkan menjadi faktor pembentuk keputusan berinvestasi saham di Indonesia yaitu investment management experience; investment management knowledge.

INTRODUCTION

Prospective investors certainly have different types of considerations when making an investment. This is of course influenced by many aspects. The investment models offered to investors also vary, ranging from stocks, mutual funds, gold bonds to peer-to-peer lending. Although identified in more detail, each investment model also has a different timeline. In addition, different levels of risk and return on investment (ROI) are offered. The minimum investment model can be divided into two types,

namely those that provide long-term and short-term investment options. Bonds, mutual funds and gold/precious metals are examples of low risk investment models, so these investment choices can be said to be included in the long term investment model. Other investment options are stocks and peer-to-peer lending. This peer-to-peer lending investment option has the advantage that potential investors can choose the level of risk according to their preferences. What is meant by level of risk according to preferences is that investors can choose between low, medium and high risks that are suitable for short-term investment choices. In the calculation of the 10-year average, mutual funds offer the highest return on investment with a value reaching 203%. The shares took second place with 195.2%. Peer-to-peer loans with different levels of risk offer a return on investment of 180%. Below, bonds follow with a value of 170%. While gold only provides an 89.4% return on investment. Peer-to-peer lending was also the fastest growing investment in 2017. The investment value increased by 802.8% compared to 2016, from IDR 284 billion to IDR 2,560 billion. Followed by gold with an increase of 38.85%, mutual funds of 35.07% and bonds recorded only an increase of 5.38%, while stocks actually fell by 1.79%. Therefore, with a variety of existing investments, potential investors should pay attention to a number of things so as not to be caught in illegal investments and big losses (<https://katadata.co.id/>, accessed July 19, 2020).

Someone has to be wise in managing their finances so that they don't get drawn into illegal investments or suffer losses. Millennials or part of Generation Z are known to be less savvy in managing their finances (Pangestu & Karnadi, 2020). In fact, this generation will be the future of the country. When someone is not wise in the management of finances, he can fall. The importance of the decisions in this investment, becomes an emergency in this research. Investing is investing money. This investment process is carried out by starting and/or developing projects which can be realized by buying assets or interests where the funds are then used. The purpose of investment activity is to generate income. On the other hand, not only does it generate revenue, but it also increases in value over time. Several examples of investment activities can be performed by (1) buying bonds; (2) stocks; (3) real estate properties among others; (4) constructed buildings or other facilities used to produce goods may be considered an investment; (5) The production of goods necessary for the production of other goods can also be considered as an investment.

Gold/precious metals, bonds and low-risk mutual funds are long-term investment choices. Shares and loans between individuals. The advantages of peer-to-peer lending are that potential investors can choose the level of risk according to their preferences, ranging from low, medium and high risk suitable for short-term investment options. (<https://katadata.co.id/>, accessed July 19, 2020). There are various reasons why someone decides to invest. When someone spends a certain number of funds to invest, he surely expects future returns. The higher the risk level of the selected investment, the higher the potential return that will be obtained. Several studies show that social connection influences international trade decisions (Bailey et al., 2021; housing prices (Bailey et al., 2018), bank loans (Rehbein and Rother, 2020), institutional investments (Kuchler et al., 2021) and behavioral responses to COVID-19 (e.g., Bailey et al., 2020; Coven and Gupta, 2020; Holtz et al., 2020; Kuchler et al., 2022; Milani, 2021). The following terms are often encountered when discussing investment: (1) Risk is the level of potential possibility of loss occurring because the expected return on investment does not meet expectations; (2) Yield (yield) is the level of potential profit likely to be obtained in the future; (3) The expected rate of return is the future rate of return expected by investors; (4) The real rate of return (realized return) is the real rate of return or the rate of return actually received by investors. Therefore, investing, especially in stock market instruments, is an important thing to study. Relatively little research has examined the factors that shape the decision

to invest in stocks. Therefore, this study specifically examines that. The problem formulation in this research is to find out what factors influence the decision to invest in stocks in Indonesia. Therefore, the objective of this research is to understand and analyze the factors that influence stock investment decisions in Indonesia.

LITERATURE REVIEW

There are three main principles that must be guided by investing. First, high risk and high reward. Second, the time value of money. Third, don't put your money in one basket. Investment is a commitment to a number of funds or other resources that are made at this time, with the aim of obtaining a number of benefits in the future (Tandelilin, 2001). Moreover, the investment delays for some time the current consumption to be used in efficient production (Jogiyanto, 2003). Sharpe et al (2005) frame investment in the sense of sacrificing assets currently held in order to obtain assets in the future, of course, in larger quantities. In every investment instrument that offers high returns, it also contains high risks. Conversely, any investment instrument that offers low returns also carries low risk. Therefore, there are no investment instruments that offer high returns but contain low risks or vice versa. For an investment to provide an appropriate return, it is necessary to pay attention to the time value of money. The time value of money is used to assess the economic soundness of investment results. Investing in it will provide better value. A fairly effective measurement tool for assessing the fairness of an investment is to calculate the net present value. An investment that produces a positive net present value calculation is a profitable investment, and vice versa. In an effort to control investment risk, there is a principle that must be understood, namely not to put your money in the same basket. Therefore, if you only buy one type of stock, if the stock price drops significantly, the investment value will continue to fall. On the other hand, if you buy ten types of stocks, if the price of one stock goes down, it is possible that the other prices will be supported. This is an important principle to understand.

When investing, cash management is something that is important to do correctly so that existing funds can be put to optimal use. Cash is an important aspect that plays a major role in transactions. The function of cash is very important according to Keynes in Husnan (1998:452) states that there are three motives for having cash, namely: (1) Transaction motive means that the firm provides cash to pay for various business transactions. Both regular transactions (such as payment of salaries and various administrative costs) and irregular transactions (such as repayment of debts, payment for the purchase of fixed assets); (2) The precautionary motive aims to maintain cash balances to meet an unexpected demand for cash. If all disbursements and receipts could be accurately predicted, then the precautionary cash balance would be very low. In addition to the accuracy of the cash forecast, if the business has significant access to external sources of funding, the cash balance will also be low. This precautionary motive seems to be in the policy of determining a minimum cash balance in the amortization of the cash budget; (3) The speculative motive aims to profit from holding or investing cash in highly liquid forms of investment. Usually, the type of investment chosen is investment in securities. If the interest rate is expected to fall, it will turn the cash held into stocks, in the hope that the stock price will rise. Furthermore, Martin et al (1991) in Husnan (1998: 453) state that speculative motivations are the smallest component of a firm's preference for liquidity. Transaction and precautionary motives are the main reasons companies have cash. It's no different for individual investors either. In this way, the speculative motive becomes quite difficult

to apply when it comes to having high liquidity. This is consistent with the theory that profitability (ability to generate profits) is inversely proportional to liquidity (Horne and Wachowicz, 1997: 217).

The concept of understanding the higher the level of risk, the higher the level of profit obtained. Therefore, while investing, it is necessary to understand which instruments offer the level of risk and the level of profit from lowest to highest. The choice of this investment is also influenced by the profile of each investor where each investor is different. In addition, the needs and objectives of the investment made may differ from each investor. This is linked to the priority scale determined by the investors themselves. The form of the priority scale can be divided into short term, medium term and long term. The longer the investment period, the higher the risk of the chosen investment instrument. On the contrary, if the investment period is short, the chosen investment instrument presents a lower risk.

Theory Planned Behavior

The decision of an investor in choosing the investment he wishes to make can be explained by the theory of planned behavior (Ajzen, 1991; Steinmetz et al, 2011). This theory is synonymous with the theory of human behavior which explains that an individual can make rational decisions based on that individual's knowledge, skills and attitudes (Ajzen, 1991). It can be said that the Theory of Planned Behavior (TPB) is a form of development of the Theory of Action Reaction which is widely adopted in various concepts intended to study intentions, decisions and actual behaviors (Ajzen, 1991). This theory is well known in the behavioral field. When someone has a certain intention to act, it will lead to a certain behavior that will ultimately influence their decision making. In the intention of behaving in this TPB concept, there are at least three main aspects, namely attitudes, subjective norms and perceived behavior. TPB theory is suitable to be the main theoretical basis for factor research investment decision making for investors in Indonesia.

Factors Determining Stock Investment Decisions

The decision to invest in stocks includes a variety of activities related to the process by which an investor ultimately chooses which investment to purchase. Includes not only the process of buying, but also the process of maintaining that investment choice, also known as the investment decision. The process of selling an investment is also part of the investment decision business. These various activities in investment decisions are then supplemented with an explanation from Hasanuh (2020), that financial knowledge is necessary for an investor so that this financial knowledge can be used as a tool to calculate or measure the rate of return of a person in investing, and can also help minimize the risk of investment loss. It should be emphasized that the higher the rate of return offered by certain investment instruments, the higher the risks incurred by investors, and vice versa. When an investor is unable to take this risk into account, it will have bad consequences for his investment and his investment portfolio.

Different types of factors that could influence someone in an investment decision. According to Kempson (2008), financial literacy is classified into 4 basic concepts such as: (1) Knowledge of goals and how to save; (2) Skills in creating a savings plan; (3) Attitudes that show a willingness to save; (4) The behavior of setting aside money for savings. According to Ferli et al. (2022), the investment experience can be described in several indicators such as: (1) Buying stocks when interest rates are high; (2) Receive stock dividends; (3) Buy stocks of different industries. Moreover, Darmadji and Fakhrudin (2011) revealed that stock prices are formed from the interactions between sellers and buyers in the hope of gaining a profit, so investors need information related to the formation of these stocks to make decisions to sell or buy stocks.

RESEARCH METHODS

The population of this study consists of millennial and Gen Z investors. The sample for this study used non-probability sampling, namely, purposive sampling with the following criteria: (1) Residence of respondents in Java and Bali; (2) Age up to 18-40; (3) Respondents invested in stocks. The total number of respondents was 185 people. This research uses quantitative research. Data types using primary data with questionnaire data collection methods. The measurement scale for this study uses a Likert measurement scale. The factors studied are (1) Knowledge would include the purpose of savings and its instruments; (2) Skills the ability to make a savings plan; (3) Attitude the willingness to save in advance; (4) Behavior of setting aside certain savings; (5) Buy stocks when interest rates are high; (6) Obtain stock dividends; (7) Obtain capital gains; (8) Buy stocks with different types of industries.

This research uses the method of factor analysis. The purpose of using factor analysis is to describe the structure of a data set and to analyze the relationships or correlations between variables in a way that describes a set of similar variables or dimensions and are often called factors. Factor analysis is performed to confirm and identify a small number of factors or also called latent constructs from the large number of observed variables or elements (Hair et al., 2018).

This study uses exploratory factor analysis as it can identify the relationship between variables through a correlation test. Additionally, the steps followed are (1) Compile a correlation matrix; (2) Extraction of factors; (3) Rotation of factors; (4) Designation of factors. Factor analysis was performed using the Principal Component Analysis (PCA) approach, which is a standard technique for simplifying datasets to extract data. In this step, the PCA assigns weights to each input variable included in the construction of the index with the first principal component determined as the new value of the index which is considered as the best representative of the values selected by the input variables via Bartlett's rounding test and Kaiser-Meyer-Olkin (KMO) test to check the relevance of this factor analysis data. This Bartlett test consists of testing whether the correlation matrix used in the PCA is an identity matrix with a significant condition ($p < 0.05$) for the adjustment factor analysis. The first factor explains the highest percentage of the total variation. The second extracted factor explained most of the remaining unexplained variance but without any correlation with the first factor. This extraction process continues until the variance is greater than a certain threshold, and then explained by each component as a new factor denomination.

RESULTS AND DISCUSSION

Results

The research was successful in obtaining a number of respondents who met the purposive sampling criteria, making a total of 185 respondents. This number represents the millennial and Gen Z investors who are indeed the focus of this research. According to the US Census Bureau, Gen-Z are individuals born since 2000 (Pangestu & Karnadi, 2020). There are several statements in the questionnaire that are the main research data. All reporting items were performed at the data analysis stage using SPSS as the data processing tool. The data processing results obtained several things as follows:

Table 1. KMO Test Results and Bartlett's Sphericity Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.843
Bartlett's Test of Sphericity	Approx. Chi-Square	637.311
	df	28
	Sig.	.000

Source: processed data, 2023

Table 1 shows that the Kaiser-Meyer-Olkin (KMO) value is 0.843. This value exceeded the minimum threshold value for performing a factor analysis, namely 0.50. Thus, the calculated KMO value of 0.843 is greater than the specified requirement, which is 0.50, so the factor analysis process can be continued. The value of Bartlett's sphericity test in Table 1 is 0.000. The limit value of Bartlett's sphericity test is determined to be less than 0.05. Thus, Bartlett's sphericity test value of 0.000 meets the specified requirements, which is less than 0.05, so the factor analysis process can proceed.

Table 2. Extraction Results (Variance Explained)

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.980	49.755	49.755	3.980	49.755	49.755	3.023	37.782	37.782
2	1.154	14.428	64.183	1.154	14.428	64.183	2.112	26.401	64.183
3	.813	10.168	74.352						
4	.617	7.707	82.059						
5	.509	6.368	88.427						
6	.420	5.250	93.677						
7	.321	4.007	97.684						
8	.185	2.316	100.000						

Extraction Method: Principal Component Analysis.

Source: processed data, 2023

Table 2 explains that out of the 8 variables analyzed in this study, the results of the extraction are two-factored because they meet the requirements, namely the eigenvalue must be greater than 1. The first factor seems to be able to explain 49.755% of the variation and the second factor is able to explain 14.428%. The two factors that form can explain the overall factor of 64.183%.

Table 3. Community Test Results

	Initial	Extraction
FL1	1.000	.602
FL2	1.000	.649
FL3	1.000	.669
FL4	1.000	.578
IE1	1.000	.355
IE2	1.000	.788
IE3	1.000	.830
IE4	1.000	.663

Extraction Method: Principal Component Analysis.

Source: processed data, 2023

Table 3 illustrates the diagonal value of the correlation matrix when using a PC where the result is an initial of 1 for all statements. This value interprets that each utterance can be fully captured by the dimensional structure, so it is the main component that explains the total number of variants in the variable set. In the extraction column it describes the percentage of variance for each variable in the number of factors extracted, in this case there are 2 factors. The cumulative extraction factor formed was previously described in Table 2, namely 64.183%. Table 3 shows that the highest community value is IE3, which is 0.830, and the lowest community value is IE 1, which is 0.355.

Table 4. Component Matrix Test Results

	Component	
	1	2
FL1	.627	.457
FL2	.805	.041
FL3	.651	.495
FL4	.520	.555
IE1	.562	-.199
IE2	.799	-.387
IE3	.846	-.339
IE4	.759	-.294

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Source: processed data, 2023

Tabel 5. Hasil Uji Rotated Component Matrix

	Component	
	1	2
FL1	.244	.737
FL2	.630	.502
FL3	.241	.782
FL4	.100	.754
IE1	.572	.165
IE2	.875	.151
IE3	.885	.217
IE4	.789	.203

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 3 iterations.

Source: processed data, 2023

Based on Table 4 on the Component Matrix and Table 5 on the Matrix Component Rotation, it is clear that there are two groupings of factors. The first factor is FL2, IE1, IE2, IE3 and IE4. This first factor includes the following, namely skills, the ability to make a savings plan, to buy stocks when interest rates are high, to obtain stock dividends, to obtain gains in capital and to buy shares with different types of

industries. This first factor is then called Investment Management Experience (IME). The second factor is FL1, FL3 and FL4. This second factor includes the following elements, namely knowledge would understand the purpose of savings and its instruments, attitude the willingness to save in advance; and the behavior of setting aside some savings. This second factor is then called Investment Management Knowledge (IMK).

Discussion

The research carried out is in line with the theory of planned behavior (Ajzen, 1991; Steinmetz et al, 2011) concerning an investor's decision to choose an investment that he makes requires different influencing factors. This research is able to prove that there are several factors that can stimulate a person so that he can finally be influenced to decide on the best investment for him. This is understood as the basic behavior of investors in planning periodic, short-term, medium-term or long-term investments. Various investment instruments require an investor to truly understand before engaging in investment activities. Thus, the following two factors are recommended by researchers as the main factors that influence an investor in his investment decision.

This first factor is then called Investment Management Experience (IME). This IME factor is quite dominant as a consideration for millennials or Gen Z in making investment decisions. IME is an important factor for Gen Z, known for their lack of financial planning wisdom (Pangestu & Karnadi, 2020). This generation needs logical thinking that makes them feel that this investment decision is important to them. The first factor of IME includes the following i.e. skills, ability to make a savings plan, buy stocks when interest rates are high, get stock dividends, get capital gains and buy stocks with different types of industries.

IME can be achieved by building personal skills and abilities to develop investment plans. When a person has good skills in planning their investments, they will be more savvy in managing their money to include it in the type of investment that suits them. This skill definitely needs to be honed as it is an expertise. With qualified skills and abilities, someone (especially millennials) can ensure their financial security (Xie, Osińska and Szczepaniak, 2023). IME also emphasizes the consideration of buying stocks when interest rates are high. It is certain that investors will receive stock dividends and capital gains, which are also important factors for IME. The philosophy of not putting money in a basket is also consistent with one of the important parts of the IME factor, which is that investors are advised to buy stocks in various types of industries based on their experience in of investment. Of course, they can't make just any investment, but investors need to improve their IME so that they have a positive reasoning about the wisest investment decision for them.

This second factor is then called Investment Management Knowledge (IMK). IMK is the dominant factor that determines the investment decisions of investors in Indonesia, especially the millennial generation. IMK is important for an investor, especially a novice investor. This second factor includes the following, namely, knowledge would include the purpose of savings and its instruments, the attitude of willingness to save in advance, and the behavior of setting aside part of savings. Knowledge of investing as well as saving should be the main basis of an investing person, especially regarding investment benefits, investment tools, etc. Research by Pangestu & Karnadi (2020) supports the findings of this study that financial literacy has a positive effect on savings decisions, meaning that when a person has good financial literacy or knowledge, better she will be able to make decisions about savings or other investments. . Moreover, this knowledge of finance is a good step to predict favorable financial conditions for future generations in Indonesia (Pangestu & Karnadi, 2020). IMK also points out that it is important to stimulate the attitude to save so that one can bring it to the reality of financial behavior through investment (Xie,

Osińska, & Szczepaniak, 2023). The behavior of setting aside a portion of savings in the IMK concept can support prudent behavior in an investor's financial planning (Pangestu & Karnadi, 2020).

CONCLUSION

Research shows that when investing in stocks, two elements become determining factors in stock investment decisions, namely (1) investment management experience (IME) includes elements, namely skills, the ability to build a savings plan, buy stocks when interest rates are high, earn stock dividends, earn capital gains, and buy stocks with different types of industries; (2) investment management knowledge (IMK) includes elements, namely knowledge would include the purpose of savings and its instruments, attitude, willingness to save in advance and behavior to put aside some savings. The results of this study should be useful to educators and parents; giving them evidence to use on educating young people. Providing financial security for Gen Z and Millennials.

What can be learned is that it is necessary to understand the basic concept of investing to understand that investing must be planned and can be done periodically and over a long period of time. On the other hand, it is necessary to know how to invest, in particular by apprehending the investment instruments according to the profile of the level of risk and the level of profit. It also depends a lot on the scale of priority of needs and priorities, namely the short term, the medium term and the long term. In addition, it is also important to carry out a financial balance sheet to be able to determine the adequacy of the planned financial objectives, the established budgets, the execution carried out, the commitments in the implementation, the evaluation and reviews carried out, so that finances can be managed properly and properly.

The limitation of the research is that the sample size is still relatively small, so further research can increase the sample size. Furthermore, the investment instruments studied focus on shares, so they do not include other financial investments such as gold, bonds, mutual funds, derivatives and others. On the other hand, this research focuses on the investment decision behavior of investors in Indonesia and does not take into account the investment decision behavior of investors in other countries.

Further research can be developed using different analysis techniques to determine the influence between the variables studied. Apart from that, further research can examine other investment instruments such as gold, bonds, mutual funds, derivatives and others to find out differences in behavior in making investment decisions. Meanwhile, research can be carried out by comparing samples, namely with characteristics based on the risk profiles of different investors.

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